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~~Outputting said generally applicable information --~~

II. REMARKS

A. Introduction.

The Office Action mailed on November 29, 1996 has been carefully reviewed. The Examiner's comments on the claims are acknowledged and appreciated. In response thereto, Applicants herein offer persuasive arguments addressing the Examiner's objections and rejections. Claims 2, 3 and 5-15 have been carefully amended, claim 16 has been canceled, rewritten and presented as new claim 17, and new claims 18 through 39 are presented which set forth additional inventive method steps. New claim 18 pertains to the programming of a duration, while new claims 19 through 27 pertain to Applicants' inventive interactive method for information delivery involving their interactive video output apparatus. New claims 28 and 29 pertain to Applicants' interactive method for delivering a budget, involving an interactive mass medium programming output apparatus. Lastly, new claims 30-39 pertain to Applicants' inventive interactive method for delivering a modified budget, involving an interactive mass medium program output apparatus. No new matter is presented in the foregoing amendments or in new claims 17 through 39, and entry of same is respectfully requested. Thus, claims 2-15, and 17 through 39 are active in this application and early allowance of same is earnestly solicited.

Regarding paragraph 2 of the Office Action, Applicants respectfully point out that the Information Disclosure Statements filed for the subject application claim priority back to the application filed November 3, 1981, and issued as U.S. Pat. No.

4,694,490 on September 15, 1987. The present application claims priority under 35 U.S.C. § 120 of the following applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825
06/829,531	February 14, 1986	4,704,725
06/317,510	November 3, 1981	4,694,490

Consequently, Applicants will demonstrate disclosure only with respect to "the '87 case", namely App. Ser. No. 07/096,096 and issued as U.S. Pat. No. 4,965,825. Applicants will address the art rejections and the double patenting rejections of the Office Action, *infra*.

As to paragraph 3 of the Office Action, Applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. Assuming *arguendo* that substantially duplicate claims exist, Applicants intend to make a good faith effort to alert the USPTO of any instances in which the USPTO treats such claims inconsistently.

As to the paragraph numbered 4, Applicants acknowledge and appreciate the Examiner's concern over the use of alternative claim language. Applicants believe that the disclosure supports every possible embodiment or permutation that can be created using said language. During the prosecution of this application, Applicants intend to

ensure that the disclosure supports each possible embodiment as claimed using alternative claims.

Generally speaking, as to paragraphs 5 through 13 of the Office Action, Applicants' views are fully discussed in Applicants' reply brief to the rejections in application number 08/113,329, hereby incorporated by reference. Applicants will not repeat portions the response which are identical in this application. Applicants will discuss those portions of the double patenting rejection that are specific to the present application, *infra*.

Paragraph 10 of the Office Action states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time." (Office Action, p. 12 at lines 6-10). Applicants submit that the Examiner and the USPTO cannot defer further rejections to a later time. Every ground of rejection should be made in examiner's first Office Action. Title 37 of the Code of Federal Regulations (C.F.R.) states that "[o]n taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." 37 C.F.R. § 1.104(a). The M.P.E.P. states "[t]he examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder of invention, fundamental defects in the application, and the like, the

action of the examiner may be limited to such matters before action is made.” M.P.E.P. § 707.07, quoting 37 C.F.R. § 1.105. Finally, “[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . . Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression.” M.P.E.P. § 707.07(g). Applicants submit that the Examiner has a duty to give each application a complete examination, that rejections be made with specificity, and that deferred rejections are not allowed. For these reasons, Applicants likewise traverse the rejection based on the “judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following [list of all applicants copending applications].” Applicants submit that this rejection, even if appropriately made with specificity, should be a provisional double patenting rejection. Applicants respectfully request that this rejection be withdrawn.

As to paragraph 12 related to the multiplicity rejection in parent file 07/096,096, Applicants submit that the USPTO gave a multiplicity rejection in this case and limited Applicants to twenty-five claims. Roughly one hundred claims had been originally filed. There was no substantive review of any of the other claims outside of the twenty five. Applicants were not permitted to submit additional claims although a request was made. The disclosure of Applicants address too many subject areas to be adequately covered by a small number of claims. Applicant submit that “nexus” analysis is not required by Applicants.

As to the Office Action's (paragraph 14-23) rejections of various pending claims and objections to the specification under 35 U.S.C. § 112 and related sections of the C.F.R. and M.P.E.P., Applicants have amended the pending claims to further the Examiner's understanding of the claimed subject matter. Applicants, where requested and where necessary, have provided citations to the specification to demonstrate enablement. Applicants submit that the claims as amended, and the new claims, are distinct and are properly described and fully enabled by the priority disclosure.

Applicants will provide detailed remarks on the Examiner's specific objections and queries, *infra*.

As to the rejection by paragraph 22 of claims 2-8 and 12-15 under 35 U.S.C. § 102(b) as being anticipated by Hedger *et al.*, Applicants traverse this rejection in that the cited reference fails to teach every element of Applicants' inventive method steps recited in claims 2-8 and 12-15. Applicants will provide detailed argument, *infra*.

As to the rejection by paragraph 23 of claims 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Millar *et al.* in view of Hedger *et al.*, Applicants traverse this rejection in that there is no teaching, suggestion or implication to combine the teachings of these references to produce Applicants' inventive method steps recited in claims 9-11.

Concerning paragraph 24 of the Office Action, Applicants present a discussion of the interview record.

B. Response to the Rejection of Claims 5-15, as Amended, under

35 U.S.C. § 112, Second Paragraph.

1. Introduction.

In paragraph 14 of the Office Action, the Examiner states that “[C]laims 5-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention:

“There are instances when a limitation is claimed either in the preamble or the body of the claim, and then, again later in the claims, without being prefaced by “the” or “said”. Applicants should confirm whether the same limitation is being claimed the second time:

claim 5, line 12, “control signals”

claim 9, lines 13 and 14, “instruct signal” and “transmitter”,

claim 12, line 8, “processor”.

In claim 7 there is no antecedent for “computer”.

2. Applicants’ Discussion of the Amendment to the Claims.

Accordingly, Applicants have amended claims 5 through 15 so as to particularly point out and distinctly claim their inventive method steps.

Specifically, in claim 5 at line 12 “said” has been inserted following “receiving” to more clearly recite that the control signals received at the transmitter station are indeed the control signals referred to in the preamble of claim 5, as amended. In line 13, the word “operate” has been replaced with the phrase “effective at one of said receiver stations” to more clearly recite that the control signals serve to direct execution of the code referred to throughout the remainder of claim 5, as amended. In line 2, the words “or computer” have been inserted, following “processor”, in order to both provide necessary antecedent basis for claim 7, as amended, and to clearly recite that either a processor or a computer can be present at each receiver station. In addition, in line 2 of claim 5, as amended, the article “a” has been replaced by the phrase “and at least one” to more clearly recite that each of the plurality of receiver stations, to which the preamble of claim 5, as amended, discusses, include more than one processor. The remainder of claim 5, has been amended to more plainly recite that the receiver station of Applicants’ invention is adapted to both detect the presence of the control signals and also is programmable to process downloadable code.

Antecedent basis for the term “computer” in line 8 of claim 7, as amended, which depends from claim 5, as amended, is now provided by recitation of “computer” in line 2 of claim 5, thus clearly recited that each of the receiver stations of Applicants’ inventive method include a processor and/or a computer.

At line 3 of claim 9, the term “instruct” has been inserted before “signals” to both provide antecedent basis for later use of the term throughout the claim as well as

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to clearly recite that Applicants' broadcast and/or cablecast transmitter transmits to the receiver stations, one or more specific instruct signals which serve to instruct a computer or processor in an intended manner. In addition, throughout the claim the term "at least one of a broadcast transmitter and a cablecast transmitter" has been inserted to more plainly recite that the transmitter referred to is the broadcast transmitter and/or the cablecast transmitter referred to in the preamble of the claim. In addition, the phrase "at least one" has been inserted before "instruct signals", in order to more plainly recite that reception of one signal is sufficient for transmission by the remote intermediate data transmitter station. In line 14, the word "delivering" has been replaced by "communicating" in order to improve the overall syntax of the claim. Similarly, at line 19, the word "transmitting" has been replaced by "communicating" in order to improve the overall syntax of the claim. In all instances throughout the claim, the term "transmission" has been replaced with the word "transfer" in order to more plainly recite that the selective devices referred to, such as at line 5, are properly termed "selective transfer devices".

Finally, in all instances throughout the claim, the phrase "remote transmitter station", has been amended to read "remote intermediate data transmitter station", as recited in line 1 of the preamble, in order to provide consistency in terminology.

3. Summary.

Applicants respectfully submit that the now amended claims 5-15 particularly point out and distinctly claim the subject matter sufficiently for one of ordinary skill in

the art to comprehend the metes and bounds of the claimed invention. Applicants' amendment to claims 5-15 are believed to eliminate any confusion as to what is being claimed.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 112, second paragraph rejection of claims 5-15.

C. Response to the Rejection of Claim 16 under 35 U.S.C. § 112 First and Second Paragraphs.

1. Introduction.

In paragraph 15 of the Office Action, the Examiner states that "[C]laim 16 is rejected under 35 U.S.C. § 112, first and second paragraphs, as the claimed invention is not described in such full, concise, and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The '87 case did not disclose the terms "prompting". What does this mean as used in the claim? Any why would this usage not be new matter?

2. Applicants' Discussion of Canceled Claim 16 and New Claim 17.

Accordingly, Applicants have canceled claim 16, and present new claim 17, constituting the inventive method steps of claim 16 but recited in an improved form so as to overcome the 35 U.S.C. § 112 first and second paragraph rejections.

Specifically, the structural limitations recited in claim 16, involving Applicants' interactive mass medium program output apparatus, have been moved to the preamble of claim 17, followed by the recitation of Applicants' inventive interactive method for information delivery, as previously set forth in the remainder of claim 16. The term "prompting" is used here to mean that in this particular method step, Applicants call for input from the subscriber concerning information to be delivered via the overall interactive mass medium program output apparatus. Applicants note that use of the term "prompting" is not new matter because one of ordinary skill in the art would understand and appreciated the use of the term "prompting" and that the term means "requesting input" such as from a subscriber or user.

In addition, Applicants respectfully submit that one of ordinary skill in the art would comprehend the meaning of the term "prompting", per its ordinary use, to mean "encouraging" or "soliciting" or "initiating". Also, Applicants respectfully submit that one of ordinary skill would comprehend the meaning of "promoting", per its ordinary use, to mean "advertising" or "publicizing". Moreover, it is clear that the priority document, U.S. Pat. No. 4,964,825, filed September 11, 1987 and issued on October 23, 1990 (the "'87 case"), adequately discloses and defines the concepts of claim 17. Said claim is directed to an interactive method for information delivery, involving a remote station and a plurality of transmitter stations. Applicants' inventive method is useful with a mass medium program output apparatus, which includes an input device, an output device, a transmitter, and a receiver. The input device serves to receive input from a subscriber, the output device serves to output information, and the transmitter

serves to communicate information to a remote station. The receiver receives a signal from the remote station. The steps for carrying out the inventive method recited in new claim 17, include first outputting mass medium programming containing or explaining at least one receiver specific datum, the step of prompting input from the subscriber during the mass medium programming with respect to the information, and then receiving a reply from the subscriber at the input device in response to the prompting step. The method next calls for communicating the reply to a remote site, performing at least one of formulating and assembling a signal effective at the output apparatus to generate and output user specific budget data, and finally delivering combined medium programming explaining a user specific budget at the output device based upon the signal.

3. Summary.

Applicants respectfully submit that new claim 17 is adequately described and fully enabled by the specification, and is sufficiently definite to allow one of ordinary skill in the art to comprehend the metes and bounds of the claimed subject matter.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 112 first and second paragraph rejection.

D. Response to the Examiner's Question Concerning use

of Common Phrases.

1. Introduction.

In paragraph 16 of the Office Action, the Examiner states that “[T]he common phrases were not disclosed in the ‘81 case. It is questioned where, in the ‘81 disclosure, is there support for an operational embodiment using the established meaning of these terms: product

real estate

budget

labor

income

expense

profit”

2. Applicants' Discussion of the Common Phrases.

Applicants note that the phrases and terms “product”, “real estate”, “budget”, “labor”, “income”, “expense”, and “profit” are consistently used and/or explained through the specification.

In particular, the terms “budget”, “profit” and “expenses” are presented respectively, among other places, on page 550, line 30 through page 551, line 6, in terms of example #11. For the Examiner’s convenience, Applicants repeat this passage herein: “The specific “optimal” crop planting plans so computed vary from station to station

and include **budget** information of projected revenues, **expenses**, and **profits**. The plan of one particular farmer calls for planting forty acres of oats and sixty acres of wheat and projects **profits** of fifteen thousand units of local currency. The plan of a particular second farmer calls for planting fifteen acres of broad beans and five acres of tomatoes and projects **profits** of thirty thousand units of local currency. The plan of a particular third farmer calls for planting ten acres of red tulips and two acres of blue tulips and projected **profits** of twenty thousand units of local currency.”

In addition, the term “budget” is recited on page 552, line 24, in a passage the reads in pertinent part: “ Automatically, crop and **budget** information of the aforementioned optimal crop planting plan of each farmer is explained ... ”.

Concerning the term “product”, Applicants point to the passage of the ‘87 specification beginning on page 550, line 30, and recited throughout in other places, which discusses the type of crops that the farmer is growing, to be collectively called “product”. That is to say, the crops that the individual farmers are growing, be it oats (page 550, line 33), wheat (*ib.*, line 34), broad beans (page 551, line 1), tomatoes (page 551, line 2), red tulips (*ib.*, line 4), or blue tulips (*ib.*, line 5), are in essence “product” in terms of Applicants’ inventive method.

Similarly, on page 533, line 33, *et seq.*, Applicants speak of “property” in connection with a farmer’s decision of “... what mix of crops is most profitable to grow on his property...”. The use of the word “property” here is clearly meant to refer to “real estate”, as in real property. Thus, Applicants’ intend for the terms “property” and

"real estate" to be interchangeable in that both terms apply to the description of land, such as the land used for farming.

With respect to "income", Applicants point to page 550, lines 30, *e t seq.*, wherein the terms "profit" and "profits" are used in connection with projected revenues, expenses and profits. In this instance Applicants clearly intend that the terms "profit" ("profits"), "income" and "revenue" are to be synonymous, that is interchangeable one for the other, when discussing budget information in connection with projected income from the activities associated with farming, such that "[t]he specific "optimal" crop planting plans that [are] computed ... include budget information of projected revenues, expenses and profits." ("the '87" specification, at page 550, lines 30-33).

Finally, the term "labor" is expressed in the '87 specification at, among other places, as part of Applicants' discussion of "individual resources", as in the farmer's own **labor**, which constitutes his own individual resource. More specifically, the passage beginning at line 24 of page 556 reads: "Ultimately the planners are able to establish policy formula and item variables at levels that yield socially beneficial economic conditions while enabling farmers individually to maximize the profitability of their planting plans, subject to their individual resources." Thus, Applicants clearly imply that its is due to the **labor** of the individual farmers that profitability is maximized.

A more thorough discussion of this issue is given under heading (E) infra, in connection with Applicants' response to the rejection of the specification under 35 U.S.C. § 112, first paragraph.

In addition, The disclosure of the priority document ,U.S. Patent No. 4,965,825 (the " '87 case"), which was filed on September 11, 1987, and issued on October 23, 1990, relates to a system and methods for automatically controlling programming transmission and presentations, including the use of control and information signals within programming transmissions that are detected, processed and stored for transfer to one or more remote sites. Applicants respectfully submit that each of these terms finds clear support within the '87 specification such that one of ordinary skill in the art would appreciate its meaning respectively, when read in light of that specification.

3. Summary.

Applicants earnestly hope that the explanation of these terms provides necessary clarification with respect to the usage of these terms.

Accordingly, Applicants respectfully submit that support for these terms is found throughout the '87 specification.

E. Response to the Objection to the Specification under 35 U.S.C. § 112, First Paragraph.

1. Introduction.

In paragraph 17 of the Office Action, the Examiner states that “[T]he specification is objected to as failing to provide an enabling disclosure:

“The following common phrases were not disclosed in the ‘87 case. It is questioned, where in the ‘87 disclosure, is there support for an operational embodiment using the established meaning of these terms:

real estate

labor”

2. Applicants' Discussion of the Specification.

Applicants respectfully submit that the written description of this application meets the two essential requirements of 35 U.S.C. § 112, first paragraph, *i.e.* that the written description be (1) an adequate description and that the written description be (2) an enabling disclosure. As discussed *supra*, Applicants submit that one of ordinary skill in the art, upon reading the specification would comprehend the meaning of the terms and the inventive method steps as recited in the claims, and would be further enabled to reduce the subject matter to practice.

On page 533, line 33, *et seq.*, as discussed above in connection with the paragraph 16 objection, Applicants speak of “property” in connection with a farmer’s decision of “... what mix of crops is most profitable to grow on his property...”. The use of the word “property” here is clearly meant to refer to “real estate”, as in real property. Thus,

Applicants' intend for the terms "property" and "real estate" to be interchangeable in that both terms apply to the description of land.

In fact, the term "labor", as is discussed above in connection with the rejection set forth in paragraph 16 of the Office Action, is expressed in the '87 specification at, among other places, as part of Applicants' discussion of "individual resources", as in the farmer's own labor, which constitutes his own individual resource. More specifically, the passage beginning at line 24 of page 556 reads: "Ultimately the planners are able to establish policy formula and item variables at levels that yield socially beneficial economic conditions while enabling farmers individually to maximize the profitability of their planting plans, subject to their individual resources." Thus, Applicants clearly imply that its is due to the **labor** of the individuals who farm the property that profitability is maximized.

Applicants read the "antecedent basis" requirements of 37 C.F.R. 1.75 § (d)(1) as implementing 35 U.S.C. § 112, second paragraph insofar the claim terminology is concerned, must have a basis in the specification whereby the claimed subject matter is (1) adequately described and (2) fully enabled. Applicants respectfully submit that the C.F.R. does not require slavish adherence to the often wordy and cumbersome language of the specification, but permits the use of synonyms and equivalent terms that encapsulate concepts that are otherwise properly described and enabled by the specification. Applicants submit that their reading of the C.F.R. is bolstered by the language of the regulation itself: "...terms and phrases used in the claims must find clear support or antecedent basis...". 37 C.F.R. § 1.75(d)(1).

Regarding M.P.E.P. § 608.01(1), Applicants respectfully traverse this objection as not being germane this section addresses the scenario where the claimed subject matter is adequately disclosed by the claims but not the specification. Applicants maintain that the disclosure of the '87 case properly discloses the subject matter of the claims 2-15, as amended, as well as new claims 17-39, and therefore traverse any objection to the specification made under M.P.E.P. § 608.01(1).

In their 1987 continuation-in-part specification, Applicants disclose "an integrated system for programming communication" which encompasses many inventions and deliberately includes many embodiments. Their teaching technique is to introduce the principles of their integrated system in a series of related examples. Each example builds upon the structure and principles introduced earlier. Examining basic principles in detail in each example, enables the specification with concreteness to expand and extend the scope of the teachings in later examples.

Starting with "**One Combined Medium**" on page 19 which focuses on the creation and delivery of a receiver specific graph in a broadcast or cablecast television program, "Wall Street Week", the specification introduces concepts of personalization of mass media and broadcast control of receiver station computing equipment. At page 28 *et seq.* it describes apparatus that include signal processors and signal decoders and introduces the concept of a signal processor *system*. At page 40 *et seq.* it teaches the composition of signal information and the organization of message streams.

Then, in a series of four examples, #1 through #4 which begin on pages 108-, 143, 162, and 197, respectively, the specification demonstrates how receiver stations

communicate signal processor apparatus and methods ("SPAM") processor code and data of the integrated system of programming communication to *some* apparatus they actuate, how decryption occurs, how metering and monitoring take place, and how actuated apparatus perform. Each example builds on concepts introduced earlier in the specification to provide a detailed teaching of its own subject matter, and a particularly important teaching occurs from pages 16 through 162 where the specification teaches the structure and operating capabilities of a *controller of a decoder*.

Building on all that precedes it, **example #5**, which begins on page 248, then relates how the integrated system process a multichannel communications system, which conveys different types of signals, in order to monitor programming availability and enable receiver station apparatus to receive desired programming.

From page 278 through 312, in **example #6** and especially **example #7**, which includes both digital and analog television signals and relates to the "Wall Street Week" program (and which has further disclosure at pages 427 through 447), the specification teaches regulating reception and use of programming of the integrated system of programming communication.

At page 312 *et seq.* it relates further monitoring concepts.

From page 324 through page 390 the specification teaches a series of transmitter station and transmitter network concepts. This portion of the specification also relies on all previous disclosure in that special attention is given to intermediate transmission stations which, *as receiver stations*, responding to programming transmissions of the integrated system as well as storing, organizing, generating, and transmitting

programming. At page 340 *et seq.* **example #8** teaches distribution to, storage and organization at, and retransmission from intermediate transmission stations ("ITS") of SPAM programming--most specifically television spot commercials. At page 354 *et seq.* **example #9** teaches automating intermediate transmission station combined medium operations by describing how an intermediate station responds to an intermediate generation set and to the elements of the integrated system to generate processor code and data and transmit the code and data with SPAM programming--spot commercial unit Q of **example #8**--all of which are subsequently shown in the specification to operate at receiver stations to deliver receiver specific programming at video monitors, speakers, printers, and transmitters (telephones which communicate to remote data collection stations). At page 374 *et seq.* **example # 10** extends the transmitter and network automating concepts of examples #8 and #9 by disclosing a *plurality* of intermediate transmission stations generating processor code and data, in the fashion of **example #9**, and inserting different code and data into a *network originated* transmission of SPAM programming--again the unit of Q television spot commercial.

From page 390 through 516, the specification discloses further ultimate receiver station ("URS") automation concepts, including regulating the URS environment (page 396 *et seq.*), controlling multiple receivers and output devices to present coordinated output (page 406 *et seq.*), receiving selected programming of the integrated system (page 419 *et seq.*), certain *integrated system computer system concepts* (page 427 *et seq.*), whose **example #7** (page 427 *et seq.*) description relies on the receiving selected programming concepts of pages 419-427. At page 447 *et seq.* the specification discloses certain data

maintenance, timing control, efficiency, and other concepts involved in controlling combined media operations. At page 457 *et seq.* the specification discloses certain timing, imaging, communication, and transmission processing concepts that relate to efficient delivery of integrated system programming. At page 463 *et seq.* the specification relates to user specific audio, print, and other combined media besides receiver specific video.

With all this preparation, the specification is finally able to teach, from page 469 through page 516, the combined media presentation of **examples #9 and #10** at a plurality of ultimate receiver station (which are responding to signals sent by different intermediate transmission stations).

At page 516 *et seq.* the specification discloses enhancing and extending functionality of the integrated system by reprogramming receiver apparatus and enabling receiver stations to process transmissions having new forms of composition.

Finally, at page 533 *et seq.* the specification discloses "**Summary Example**" (#11) which teaches a very large scale integrated data processing and communications problem and its solution(s), using all of the disclosed integrated system with iterative broadcasting, response, and refinement. The full scope of the unified system of programming communication of the present invention comprehends and includes all of Applicants' apparatus and methods in all of its variations. Moreover, example #11 focuses on generating and communicating information of farmers at a time in the future, and illustrates a few features of the full scope of the present invention.

Because of the integrated nature of the disclosure, no part of the specification is intended to be considered in isolation.

3. Summary.

In view of the foregoing discussion, Applicants respectfully submit that the specification does indeed provide proper antecedent basis for the claimed subject matter of this application.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 112 objection to the specification.

F. Response to the Rejection of Claim 3 under 35 U.S.C. § 112, First Paragraph.

1. Introduction.

In paragraph 18 of the Office Action the Examiner states that: “[C]laim 3 is rejected under 35 U.S.C. § 112, for the reasons set forth in the objection to the specification.”

2. Applicants' Discussion of the Amendment to Claim 3.

Claim 3, which depends from claim 2, as amended, sets forth the additional method step of storing subscriber resource data at the receiver station recited in claim 2, as amended. The resource data includes two or more items of data, which are selected from a group of data including an equipment or real estate datum, a labor datum, and a financial datum.

Applicants respectfully submit that there is an adequate and enabling disclosure for this method step, in the specification of this application, as well as in the patent case

from which it claims priority. The disclosure clearly indicates that various forms of data are useful in creating the final budget output that Applicants' claims 2-4 are directed to.

By claim 3, as amended, the inventive method step of claim 2 further comprises the step of storing subscriber resource data at the receiver station recited in claim 2, as amended. The resource data is made up of two or more pieces of data taken from a group of data including an equipment or real estate datum, a labor datum and the financial datum discussed in the specification.

The terms "equipment or real estate datum", "labor datum" and "financial datum", find support in example #11 of the '87 specification. As Applicants discuss throughout, in connection with the 35 U.S.C. § 112 rejections and objections, the terms "labor" and "real estate" find recitation in the specification at such places as page 533 and 550-553, and the budget calculations associated therewith use data based upon each of these values respectively. For instance, the "labor datum" uses individual resource information as discussed at line 24 of page 556 of the specification, while "financial datum" involves the values pertaining to projected revenues, expenses and profits, as discussed on page 550, line 30 through page 551, line 6. The "real estate datum" is data associated with the real property involved, which is discussed, among other places, on page 533, line 33. The "equipment datum", as used in claim 3, as amended, pertains to data associated with the equipment used by the farmers, of which example #11 is directed.

Hence, Applicants respectfully submit that the subject matter of claim 3, as amended, is fully enabled and adequately described by the specification and, further

that one of ordinary skill in the art would, in this context, appreciate that the terms "an equipment or real estate datum", "a labor datum" and "a financial datum" are all useful inputs for determining a final budget output.

3. Summary.

In view of the foregoing comments, Applicants respectfully submit that claim 3, as amended, does indeed provide an enabling disclosure of their inventive method step.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 112, first paragraph rejection of claim 3, as amended.

G. Response to the Objection to the Specification.

1. Introduction.

In paragraph 19 of the Office Action, the Examiner states that "The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter noted above." See 37 C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01 (d).

2. Applicants' Discussion of the Specification.

Applicants respectfully traverse this objection in that the specification clearly provides antecedent basis for Applicants' inventive method steps.

The Examiner's attention is directed to Applicants' discussion of the objection to the specification, set forth in paragraph 17 of the Office Action.

With that in mind, Applicants respectfully submit there is necessary and proper disclosure in their '87 application to provide antecedent basis, and that there are also sufficient examples to teach the claimed subject matter of Applicants' method.

3. Summary.

In view of the foregoing discussion, Applicants respectfully submit that the specification does indeed provide proper antecedent basis for the claimed subject matter of this application.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw objection to the specification.

H. Response to the Rejection of Claims 2-16 under 35 U.S.C. § 112,

Second Paragraph.

1. Introduction.

In paragraph 20 if the Office Action, the Examiner states that "Claims 2-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention:

"In claim 1, line 10, and throughout the rest of the claims, it is not clear as to what is meant by "budget". Thus, it is further unclear what is meant by "control signals in respect of a budget". Further, in lines 11-14, it is not clear what kind of correspondence is made between the 'information content and the one or more control signals' and 'first projected datum'; how is it possible for both 'information content' and 'control signals' including a datum? And, how is the "first projected datum" related to 'control signals in respect of a budget'? Further, it is not clear what the meaning of "product" is. In the field of this invention, wouldn't the "product" be in the form of a "service"?

"In claim 5, "a method of controlling a plurality of receiver stations" is recited. However, the relationship between "a transmitter station" and "a plurality of receiver stations" is unclear. At step (1), when the transmitter station 'receives' some downloadable executable code, from 'where' is it receiving the code? Further, where is the 'output user specific budget data' generated, at the receiver stations or at the transmitter station? Further, "downloadable executable code having---a target processor to process data" does not make sense. At step (2), it is not clear what is meant by "transferring---from said transmitter station to a transmitter"; is the transmitter an independent identity from the transmitter station? At step (3), from where is the control signals coming from? Further, it is not clear what "executable" means; from the context, it seems that the downloadable executable code is downloaded to the receiver stations, if so, then what is the meaning of 'executing' the code at the transmitter station? At step (4), the meaning of "transferring" and "transmitting" is again unclear.

"In claim 8, it is not clear what is the relationship between the "one or more control signals" and the "downloadable executable code" (d.e.c.) because the idea of the control signals incorporating some of the d.e.c. contradicts the recitation at claim 5, step (4).

"In claim 9, line 2, "said remote transmitter station" lacks clear antecedent basis. At steps (1) -1(3), it is not clear where the instruct signal is originating and to where it is being transmitted.

"In claim 10, the sentence is tangled, and therefore, it is not clear what the relationship is among the control signals, the instruct signal, and the information transmission.

"In claim 12, lines 3-4, it is not clear whether or not the processor interrupt signal is inputted when the presence of the control signal is detected. In line 7, it is not clear whether or not the "information" is the "specific information" recited at line 5.

"In claim 16, lines 6-7, it is not clear what is meant by "during said mass medium program for input in respect of said information"; also note, "said information" lacks clear antecedent basis. In line 11 and line 12, "a remote station" and "a remote site" is recited, respectively; are they referring to the same thing? In lines 12-14, it is not clear what the relationship is among the "interactive mass medium output apparatus", the "remote site", the "network" and the "plurality of transmitter stations". In lines 19-20, it is not clear what "specific combined medium programming" is; is it something that relates to anything recited in previous steps?

2. Applicants' Discussion of the Amendment to Claims 2, 3 and 5-15.

In accordance with the foregoing, the claims 2, 3 and 5-15 have been amended to improve clarity and to respond to the questions raised by the Examiner under 35 U.S.C. § 112, concerning use of certain terms and expressions in the claims. For instance, such terms and expressions as, "remote site", "plurality of transmitter stations", "specific information", etc. have been clarified by the amendments. The code referred to in the claims serves to program the receiver station processor or computer to output video,

audio or text, or to process a viewer reaction to the television program or to select information that supplements the television program content.

In addition, claim 16 has been canceled, rewritten and presented as new claim 17. Applicants respectfully submit that amended claims 2-15, and new claim 17, particularly point out and distinctly claim the subject matter sufficiently for one of ordinary skill in the art to comprehend the metes and bounds of the claimed invention.

Specifically, clear antecedent basis is now provided for the terms and expressions pointed out by the Examiner. The term "target processor" is discussed in example 11, and refers to the microcomputer 205 which is found at each farmer's station. and Applicants' use of the word "budget" throughout the claims refers to the budget discussed in the example #11 which begins on page 533 of the specification. The term "downloadable executable code" has been changed to read merely "code" in order to remove ambiguity and confusion, and it is this code that is effective at a receiver station to generate and output user specific budget data. The term "transferring" as used by Applicants refers to merely sending a signal from one place to another, such as sending the control signals from the transmitter station to the transmitter.

The test for definiteness of a claim is whether one skilled in the art would understand the bounds of the patent claim when read in light of the specification, and if the claims so read reasonably apprise those skilled in the art of the scope of the invention, no more is required. Cradle v. Bond, 25 F.3d 1556, 30 U.S.P.Q.2d 1911 (Fed. Cir. 1994). The legal standard for definiteness is whether a claim reasonably apprises

those of skill in the art of its scope. In re Warmerdam, 33 F.3d 1354, 31 U.S.P.Q.2d 1754 (Fed. Cir. 1994).

Thus, Applicants respectfully submit that one of ordinary skill in the art reading the specification and claims 2, 3 and 5-15, as amended, would comprehend the inventive method steps of Applicants' invention, and would be capable of making and using same.

3. Summary.

In view of the foregoing, Applicants respectfully submit that each of their claims 2-16, as amended, particularly point out and distinctly claim the subject matter of Applicants' inventive method steps.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 112, second paragraph rejection of claims 2-16.

I. Response to the Rejection of Claims 2-16 under 35 U.S.C. § 112,

Second Paragraph.

1. Introduction.

In paragraph 21 of the Office Action, the Examiner states that "[c]laims 2-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention:

"The examiner must be able to determine the meets [sic] and bounds of the claims to perform an effective search and analysis over the art. The examiner is not

certain that the meets [sic] and bounds of these claims can be determined because of the language in the disclosure and claims. For example, the disclosure teaches many transmitter and receiver stations, instruct signals, control signals, decoders, etc. (This is just a partial list of terms in applicants' disclosure that apply to plural elements in the disclosure). When these phrases are claimed, the examiner needs to know "which" element in the disclosure is performing the claimed step. For example, when a hypothetical claim recites "transmitter station", and the disclosure teaches different ones (those in the origination, intermediate, and subscriber stations), the examiner needs to be able to envision what applicants could be claiming.

"Applicants assigned multiple meanings to words in a claim makes a claim indefinite.

"Traditionally examiners "diagram" claims to determine the meets [sic] and bounds. To explain what "diagramming" means, the examiner attempts to draw a picture (generally a circuit or a connection of block elements in an electrical application) which represents what was claimed so that the examiner can visualize how a mythical reference could anticipate the claim, if the claim was given its broadest reading. If the claim recites terms or phrases that have multiple meanings in the disclosure, the examiner can't determine whether the diagram of the claim is correct. Given that, how can the examiner determine whether the art, that could anticipate the broadest reading of the claim, was searched for?

"Admittedly, the size of applicants' disclosure with its numerous possible implementations is contributing to the problem, but the problem does exist. Applicants

are being requested to reference the claim limitations in this application to the disclosure so that the meets [sic] and bounds of these claims can be properly considered. This can be done in a remarks section, the claims do not have to be amended."

2. Applicants' Discussion of the Amendments to Claims 2-16.

Applicants traverse this rejection and submit they are under no duty to prospectively reference claim limitations to the specification where the Examiner has not specifically identified what is objected to as indefinite. M.P.E.P. § 2111 states that "[d]uring patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.'" Also, it is only "when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language." M.P.E.P. § 2111.01. Applicants respectfully request that this blanket rejection for indefiniteness be withdrawn.

However, Applicants have made a good faith effort to amend these claims to overcome this rejection, and request that the Examiner call their representative if these amendments have not addressed to problems intended by the Examiner.

Specifically, in claims 2 and 3, Applicants have more plainly stated that their method is for processing signals at a receiver station based upon receiving at least one of a broadcast and a cable cast transmission and that the receiver station includes a computer. The method involves receiving some information content, one or more control signals concerning a budget and at least one of the broadcast and the cablecast

transmission. The information content and the one or more control signals include a first projected datum which designates a product or a service, and a price or a quantity is projected. The first projected datum is stored in the computer, and then budget data is generated by processing data stored in the computer in response to at least one of the control signals. The budget data includes two or more of a group of data including an income datum, an expense datum, and a profit datum. Lastly, a subscriber is provided with at least one of an information content and at least one generated budget datum. The information content serves to explain the budget datum. In addition, subscriber resource data is stored at the receiver station, and the resource data includes two or more of a group of datum including an equipment or real estate datum, a labor datum and a financial datum.

Claim 5, as amended, and its dependents, claims 6 through 8, as amended, now more plainly recite Applicants inventive method steps of controlling a plurality of receiver stations. Each receiver station includes a television receiver, a signal detector, and at least one of processor and a computer. Each of the receiver stations is adapted to detect the presence of one or more control signals, and is programmed to process downloadable code.

Claim 9, as amended, and its dependent claims 10 and 11, as amended, more plainly recite a method of controlling a remote intermediate data transmitter station for communicating data to at least one station. The remote intermediate data transmitter station includes at least one of a broadcast and a cablecast transmitter, and each of the broadcast and the cablecast transmitter is respectively capable of transmitting at least

one instruct signal which is effective at a receiver station to instruct one of a computer and a processor, a plurality of selective transfer devices, a control signal detector, and one of a controller and a computer capable of controlling the selective transfer devices.

The remote intermediate data transmitter station can detect the presence of at least one control signal to control the communication of at least one instruct signal in response to at least one of the control signals and to deliver to at least one instruct signal to at least one broadcast transmitter and/or cablecast transmitter.

Finally, claim 12 and its dependents 13 through 15, have been amended to more plainly recite Applicants' inventive method of controlling a receiver station includes the steps of, first detecting the presence and or the absence of a broadcast or cablecast signal, inputting a processor interrupt signal to a processor based upon detecting the processor interrupt signal, controlling the processor to output specific information in response to inputting the processor interrupt signal, and then generating and outputting user specific budget data on the basis of information received from the processor. The method involves use of a buffer which is operatively connected to the processor and serves to buffer input, and the processor generates a processed datum designating a television channel or a television program. The method includes selecting additional method steps from a group consisting of controlling a tuner to receive the television channel or program designated by the processed datum, controlling a selective transfer device to input to a control signal detector at least some portion of the television channel or program that is designated by the processed datum, controlling a control signal detector to search for one or more control signals in the designated

television channel or program , controlling a selective transfer device to input control signals detected in the television channel or the program designated by the processed datum, controlling a television monitor to display video or audio contained in the designated television channel or program, controlling a video recorder to record or to play video or audio contained in the designated channel or program, and then controlling a selective transfer device to communicate the designated channel or program to a video recorder or television monitor.

Moreover, in order to advance the prosecution of the present application, Applicants provide throughout a summary of the pertinent disclosure including reference to examples supporting the claimed subject matter. Applicants shall provide citations to the '87 case supporting the pending claims. The '87 case was filed on September 11, 1987, as Ser. No. 96,096 and issued October 23, 1990, as U.S. Pat. No. 4,965,825. The disclosure of the '87 case is generally directly to apparatus and methods for automatically controlling the transmission and presentation of information programming, including the application of embedded signaling for a number of functions, including the control over decryption and access, monitoring of usage/availability, control of external equipment, coordination of multiple broadcasts, automated compilation and collection of billing data, and generation and presentation of combined media presentations of broadcast and locally-generated user specific content. The priority disclosure further discusses coordination and control of programming at several levels of the communications chain, including transmission stations, intermediate transmission stations, and receiver stations.

Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter.

3. Summary.

In view of the foregoing, Applicants respectfully request that the rejections under 35 U.S.C. § 112, second paragraph of claims 2-16 be withdrawn in that the claims have been amended to improve clarity and to respond to certain rejections made by the Examiner. Further, Applicants' amendments to claims 2, 5-12, 14 & 15, as well as new claim 17 are believed to eliminate any confusion as to what elements are being claimed.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 112 , second paragraph rejection of claims 2-16.

J. Response to the Rejection of Claims 2-8 and 12-15 under 35 U.S.C. 102(b) as being Anticipated by Hedger et al. "Telesoftware-Value Added Teletext", 1980 IEEE (Hedger)

1. Introduction.

In paragraph 21 of the Office Action, the Examiner states that : "Hedger discloses [a] Teletext TV receivers including a microcomputer and a computer type display (p. 556). Hedger also teaches a broadcast by a television company of computer programs which can be carried on unused portions of the normal television signal. The broadcasting of the computer programs allows the function of the program loading

device of the home microcomputer to be provided by existing parts of the television receiver: the tuner, IF strip and teletext decode [r] (p. 558). Some of the examples of these downloadable programs include (a) self-assessment programs, such as mortgage and tax calculations, and welfare rights examinations, and (b) database manipulation, such as stock market information can be analyzed in various ways by a program under the control of the user (558-559)."

The Examiner further states that : "Claims 5-8 will be analyzed as an exemplary group of claims. The plurality of receiver stations including a television receiver, a signal detector, and a processor are met by the Teletext TV receivers each including a microcomputer and a memory taught by Hedger. The downloadable executable code is met by the computer programs that are being broadcast. The computer program generates user specific budget data, such as mortgage and tax calculations or stock market information which can be analyzed by the program under the control of the user. The control signals are inherently disclosed by Hedger, since error control mechanism is taught (p. 559 and 562). And also, the limitation of control signal can be met by synchronization signals or clocking signals which are inherent in the teaching of Hedger."

The Examiner continues by saying: "Regarding the limitation of claim 6, the downloadable executable code being embedded in a television signal is met by the known concept of teletext which is also disclosed by Hedger.

"Claim 7 is met by Hedger's teaching on subtitling of television programs (p. 564).

"Further, claims 2-4 reads on a situation where stock market information is received as a data and this data is analyzed in various ways by a program under the control of the user to generate different types of budget data.

"Claims 12-15 reads on a situation where a stock market information and a program is downloaded which provides the user a capacity to search keywords or numeric information. Hedger teaches that user specific stock market information can be generated by using the information and user manipulation."

Applicants respectfully traverses this rejection because their method steps recited in claims 2-8 and 12-15, as amended, are not taught, disclosed, suggested, or implied by Hedger. In addition, claims 2-8 and 12-15 have been amended as discussed above, in order to further clarify the invention.

2. Applicants' Summary of Hedger.

Hedger *et al.* do not teach, disclose, suggest, or imply the use of a household radio or television receiver, along with a microcomputer, for interactive purposes. They state that a growing number of households (in the UK at least) are equipped with teletext television receivers, which contain some of the modules required for a domestic microcomputer. A key pad, usually having 12 buttons, can be used as an input device to the microcomputer and will the input of numeric data, menu item selection and some control functions. (p 566, col. lines 1-12). By merging three modern technologies teletext, microprocessors and TV games, a composite technology called telesoftware results. (p. 566 col. 2, lines 15-18) They say that teletext aims at a three cornered target consisting of the provision of information, education and entertainment. Telesoftware is

designed they say to enhance normal teletext service by providing the ordinary citizen with the opportunity to have considerable computing power available at his fingertips.

"[The ordinary citizen] can use this computing power for a wide variety of purposes, without any knowledge or experience of computers.... since the entire system allows [the ordinary citizen] to converse with his television receiver in a way not previously possible, and it can enrich and enhance the information already available via teletext by manipulating it exactly according to his wishes." (p. 566 col. 2, lines 20-38).

Hedger *et al.* present a discussion of what is required to turn a teletext receiver into a powerful domestic computer. First they say, a microprocessor chip is required, which may already be hidden away within the teletext decoder as an unassuming part. Secondly, extra memory is required for the microprocessor to hold its programs and data. Thirdly, a means of loading programs and data into the microprocessor is needed. Lastly, the programs and the data themselves are necessary. (p. 556, col. 2, lines 33-34).

Hedger *et al.* offer several schemes for loading programs into their microcomputer: a) read only memory (ROM) modules, b) audio cassettes, c) a dial-up network, based upon the public switched telephone system, where customers phone a program supply service which then transmits a copy of the required program down the telephone, and d) the broadcast by a television company of computer programs which can be carried on unused portions of the normal television signal. (p. 557, column 2, lines 1-18 through p. 558, col. 1, lines 1-7).

3. Applicants' Claims 2-8 and 12-15 are Patentable over Hedger.

Applicants' note that Hedger *et al.* do not teach, disclose, suggest or imply, as recited in Applicants' inventive method steps recited in claims 2-8 and 12-15, as amended. In particular, Hedger et al. do not teach, disclose, suggest or imply, as recited in Applicants' independent method claim 5, as amended, and amended claims 6-8 which depend therefrom, a method of controlling a plurality of receiver stations wherein each receiver station is adapted to 1) detect the presence of one or more control signals and 2) is programmable to process code. Instead, two of the several schemes that Hedger *et al.* offer for loading programs into the home microcomputer that they envision involves the use of a dial-up network based upon the public switched telephone system, and the broadcast of computer programs by a television company, as discussed above.

Instead, at p. 558, col. 1, lines 16-33, Hedger *et al.* state that "A program dial-up service is in pilot operation in the UK, using pages in the Prestal Viewdata service, but the high cost of the basic service plus the program supply service makes it more suitable for business rather than domestic use. Another complication with the dial-up service when applied to the domestic market, is the bottleneck situation which could occur at peak times, e.g. accessing programs and the data to analyze sports results on Saturday evenings." At p. 558, col. 1, lines 34-40 Hedger *et al.* State that "Broadcasting the computer programs allows the function of the program loading device of the home microcomputer to be provided by existing parts of the television receiver, namely the tuner, the IF strip and the teletext decoder."

For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be identically shown in a single reference. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Foundation v. Genetech, Inc., 927 F.2d 1565, 18 U.S.P.Q.2d 1001, 18 U.S.P.Q.2d 1896 (Fed. Cir. 1991). Absence from a cited reference of any element of a claim negates anticipation of that claim by the reference. Kloster Speedsteel AB v Crucible, Inc., 230 U.S.P.Q. 81 (Fed. Cir. 1986), on rehearing, 231 U.S.P.Q. 160 (Fed. Cir. 1986).

In general, the present invention relates to a system and method for use in formulation of plan(s) output, such plans including budgets, which are hereinafter referred to alternatively as "budget plans". The system is a communications network which includes a master station, a plurality of intermediate stations, and a plurality of receiver stations. Planners formulate government plans (e.g. agricultural, economic, monetary, etc.) and business plans (e.g. crop planting, budget etc.). The objectives including establishing beneficial policies relating to existing budgets (e.g. real estate, capital equipment, labor, financial, etc.), maximizing of profit subject to constraints (e.g. resources) and informing economic decision makers (e.g. farmers, government policy makers, etc.) in a fashion that influences their specific budget decisions (e.g. ordering goods and services, planting crops, minimizing pest damage, establishing policy variables and specific levels, etc.) Each economic decision making entity (e.g. government, business, etc.) has a receiver station programmed with data specifically

relating to budgets in respect of that entity (e.g. national policy formulas and data, local formulas and data, business resources, operating histories, etc.) Each station (master, intermediate, receiver) originates and transmits specific information used in the budget plan formulation. The master station transmits a first signal relating to budget plan output to be formulated (e.g. agricultural, crop planting, etc.). The intermediate stations (national and local) receive the first signal and formulate control signals (intermediate generation sets and program instruction sets) which incorporate formulas and items pertaining to budget planning (e.g. specific generally applicable information etc.) relevant to their respective subscriber audiences (national and local) of economic decision makers. Each intermediate station transmits its formulated control signal together with information received from the master station (e.g. projected market price(s), the specific generally applicable information, the "Farm Plans of Europe" program, etc.) Each intermediate station originates or retransmits one or more segments of mass medium (e.g. television, radio, etc.) programming (e.g. national and local segment, commercial spot programming). The receiver stations receive the control signals, and each receiver station formulates (e.g. using linear programming techniques, computing, etc.) for storage and output at least one receiver specific budget plan output (e.g. projected revenues, expenses and profits, use of acreage, specific crops to be planted, crop planting plan, European master agricultural plan, etc.)

The system formulates each economic decision maker's plan output according to the appropriate national and local controls (e.g. taxes, subsidies, etc.) and the economic resources subject to his or her decision. The receive stations output (e.g. explain) budget

plan output to the economic decision makers in the mass medium programming segment(s). The system enables each economic decision maker to understand his or her choices and to instruct the system to modify his or her own stored plan output to suit his or her own goals and priorities (e.g. wishes and inclination, respond with their own plans, etc.), to communicate (e.g. transmit(s), aggregate(s), distribute(s), etc.) his or her modified plan output (e.g., each farmer's "PLANTING.DAT" file, quantity, harvest, etc.) from his or her station to other relevant economic decision makers (e.g., to computers at national and local intermediate transmission stations, etc.), and to formulate aggregate budget plan output (e.g. European master agricultural plan).

This process is repeated a number of times (e.g. in an iterative fashion, cycles, etc.) until satisfactory policy is established on the input of the economic decision makers.

The invention in the present application is focused, within this overall disclosed system, on the use of generally applicable information and formulation of budget plan output.

Applicants' claim 2 , as amended, is directed to a method of processing signals at a receiver station, involving one or more broadcast or cable cast transmissions and a computer located at the receiver station. The method calls for a number of steps, including the step of receiving some information content and one or more control signals in respect of a budget. The information content and one or more control signals include a first projected datum designating a product o service and being a projected price or quantity. The first projected datum is stored in he computer, and a budget is

generated by processing data stored in the computer I response to the one or more control signals received. The budget includes two or more of the group comprising an income datum, an expense datum and a profit datum. Lastly, some of the received information content and one generated datum of the budget are outputted to a subscriber. Applicants' claim 3, as amended, which depends from claim 2, as amended, states that the method further includes the step of storing subscriber resource data at the computer which is located at the receiver station. The resource data includes two or more of the group including an equipment or real estate datum, a labor datum and a financial datum. Applicants' claim 4, as amended, another method claim, also depends from claim 2, as amended, recites that that the method further comprises the step of programming the computer to respond to the broadcast of cablecast control signal in respect of the budget.

Applicants' claim 5, as amended, is an independent method claim and sets forth a method of controlling a plurality of receiver stations, each station including a television receiver, a signal detector, and a processor or computer. Each receiver station is adapted to detect the presence of one or more control signals and to process code. The method according to claim 5, as amended, involves the step of receiving the code, which is useful to generate an output user specific data, at the transmitter station. The code has at each of the receiver stations a target processor for processing data. Next, the code is transferred from the transmitter station to a transmitter, before one or more control signals are received at the transmitter station. The control signals cause the code to be executed. Lastly, one or more of the control signals are transferred from the

transmitter station to the transmitter and transmitted. The transmission comprises the code and one or more control signals.

Claims 6, 7 and 8 are method claims all depending from claim 5, as amended. Claim 6, as amended, recites that the code, or other identification data pertaining to the code, is embedded in a television signal. Claim 7, as amended, recites that a television program is displayed at a receiver station and the code programs the receiver station processor or computer to output video, audio or text, or to process a viewer reaction to the television program or to select information that supplements the television program content. Claim 8, as amended, recites that the one or more control signals incorporate some of the code.

Claim 12, as amended, is an independent method claim setting forth a method of controlling a receiver station. The method according to claim 12, as amended, calls for first detecting the presence or absence of a broadcast of cablecast control signal, and then inputting a processor interrupt signal into a processor based upon the first step of detecting the presence or absence of the control signal. Next, the processor is controlled to output specific information in response to the step of inputting the processor interrupt signal. Lastly, user specific budget data is generated and outputted on the basis of information received from the processor based upon the step of controlling the processor.

Claim 13, as amended, depends from claim 12, as amended, and recites that the method of controlling a receiver station set forth in claim 12, as amended, involves a buffer which is operatively connected to the processor and buffers input. Claim 13, as

amended, also recites the method step of inputting the processor interrupt signal, which is based upon the step of detecting the presence or absence of a control signal, directly to the processor.

Claim 14, as amended, depends from claim 12, as amended, and recites that the processor processes a datum designating a television channel or television program.

Claim 14, as amended, further recites the additional method step, one step being selected from the group consisting of controlling a tuner to tune a receiver to receive the television channel or television program designated by the processed datum; controlling a selective transmission device to input to a control signal detector at least some portion of the television channel or television program designated by the processed datum, controlling a control signal detector to search for one or more control signals in the television channel or television program designated by the processed datum, controlling a selective transmission to input to a computer control signals detected in the television channel or television program designated by the process datum, controlling a computer to respond to the control signals detected in the television channel or television program designated by the processed datum, controlling a television monitor to display video or audio contained in the television channel or television program designated by the processed datum, controlling a video recorder to record or to play video or audio contained in the television channel or television program designated by the processed datum, controlling a selective transmission device to communicate to a video recorder or a television monitor the television channel or television program designated by the processed datum.

Claim 15, a method claim, depends from claim 12, as amended, and recites that the processor of claim 12 processes a datum designating one or more specific channels of a multichannel cable or broadcast signal. Claim 15, as amended, sets forth the additional method steps of controlling a tuner to tune a converter to receive the specific channels designated by the datum, controlling a selective transfer device to input to a control signal detector at least some portion of the specific channels designated by the processed datum, and controlling a control signal detector to search for one or more control signals in the specific channels, which have been designated by the processed datum. Claim 15, as amended, also recites the steps of controlling a selective transfer device to input control signals that are detected in the specific channels designated by the processed datum to a computer, controlling the computer to respond to control signals detected in one or more specific channels designated by the processed datum, controlling a television monitor to display video or audio contained in the one or more specific channels, controlling a video recorder to record or to play video or audio contained in the specific channels, and controlling a selective transfer device to communicate the specific channels to a storage device or to an output device.

The arrangement according to Hedger *et al.* does not involve both a transmitter and a transmitter station, or one or more broadcast or cablecast transmissions, such as contemplated by Applicants in their claims 2-8 and 12-15. The Hedger *et al.* reference is silent with respect to the control of such transmissions and such equipment, and provides no teaching, disclosure, suggestion or implication of Applicants' inventive controlling method steps which call for receiving at one or more receiving stations ,

where each receiver station has a respective target processor, some information content, one or more control signals, and a code, and using the code thus received to generate user specific budget data and an explanation of that budget data. Moreover, Hedger *et al.* do not address Applicants' novel controlling method steps of transferring the code from the transmitter station to a transmitter, receiving at the transmitter station control signals that are useful in executing the code, and then sending the control signals from the transmitter station to the transmitter before sending forward a transmission comprising both the code and the control signals.

Applicants' inventive controlling method also involves a television signal bearing the code or an identification of the code and a television program is displayed at the receiver station such that the code aids in programming the receiver station processor or computer to output video, audio, and / or text and to process a viewer reaction to the television program. Applicants' controlling method, as set forth in their claims 2-8 and 12-15, as amended, allow for selection of information that supplements the television program, and the use of some of the code to supplement or modify the code itself. None of these features are addressed by Hedger *et al.* Moreover, Hedger *et al.* note that the cost and expense of existing and heretofore prior teletext systems prohibit their use by ordinary person in their homes. Applicants' system on the other hand will be more affordable and more reasonably priced, thereby bring their system in reach by the average household.

The Hedger *et al.* system does not generate budget data and does not call for the use of a group of data including an income datum, an expense datum and a profit

datum, as recited in Applicants' claim 2 as amended. Instead, Hedger et al. address mortgage and tax calculations, and welfare rights examinations, with respect to one of the four general groups of supply programs available to the average citizen . Additionally, they touch upon stock market matters, but do not address the control, transmission or generation of any form of budget datum as contemplated by Applicants'.

In fact, Hedger *et al.* say that "[T]he larger market be in the supply of non-owner programmable devices for the average citizen. These supply programs fall into four general groups, [including] self-assessment programs, such as mortgage and tax calculations, and welfare rights examinations. A major characteristic of this group is that they are of a question and answer nature with numeric and logical calculations to be performed by the program upon numeric, logical and textual input provided by the user. Although uses such as mortgage and tax calculations would only require numeric, e.g. monetary values and time scales, and logical e.g. options data from the user, other uses such as welfare rights would require that textual data was also supplied by the user." (p. 558, col. 2, line 32 through p. 559 col. 1, line 12).

Applicants point out that in general, their method involves a system wherein useful information is already stored on-site, such information that is later processed as part of a budget output. The Hedger *et al.* system on the other hand, must import information from elsewhere, and call for additional input from user, such as in a question-and-answer style as discussed above in connection with the supply of non-owner programs for the average citizen .

Hedger *et al.* go on to discuss database manipulation, "...where fairly small databases, such as stock market information, are available and can be analyzed in various ways by a program under the control of the user." (p. 559, col. 1 line 33 through col. 2 line 26). Even in view of such discussion, Hedger *et al.* do not teach, disclose, suggest, or imply Applicants' method of controlling a processor to generate a processed datum designating a television channel or program, then and using that processed datum to implement the various other method steps recited in claims 14 and 15.

4. Summary

In view of the foregoing, Applicants respectfully submit that each of their claims 2-8 and 12-15, as amended, clearly contain limitations that are absent in the Hedger *et al.* reference. Thus, precluding a proper rejection under 35 U.S.C. § 102(b), Applicants submit that their claims 2-8 and 12-15, as amended, are not anticipated by the teachings of Hedger *et al.*

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 US 102(b) rejection of claims 2-8 and 12-15, as amended, as being anticipated by Hedger *et al.*

K. Response to the Rejection of Claims 9-11 Under 35 U.S.C. 103(a) as being Unpatentable over Millar *et al.*, UK 1 370 535 (Millar) In View Of Hedger (as cited above).

1. Introduction.

In paragraph 23 of the Office Action, that claims 9-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Millar et al., (UK 1 370 535 (Millar) in view of Hedger (as cited above). Examiner says that "Millar discloses a transmitting terminal (Fig. 1) which includes a plurality of asynchronous data sources 51 and a data ordering and storage unit 52 which orders and stores data under the control of an executive program by a computer. The unit 52 receives timing signals which permit it to put out synchronous data to be added to the video signal during the television vertical interval (p. 3 left column). Millar also teaches adding address codes to the character codes.

Further, the specific time reads on the actual transmitting time of the combined signal.

"Millar fails to specifically teach generating and outputting user specific budget data. Hedger discloses teletext technology as briefly described above in paragraph 3 which uses downloadable program at the teletext receiver to generate use specific budget data. Since both references disclose the technology for transmitting data using the vertical blanking intervals of video signal, and particularly because Millar discloses data manipulation at the receiving terminal, it would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate into the Millar's teaching the concept of generating user budget data using the information sent to the subscriber taught by Hedger."

Applicants respectfully traverse this rejection because there is not teaching or suggestion to incorporate into the Millar et al. system the concept of generating user budget data using the information sent to a subscriber as taught by Hedger et al., so as to arrive at Applicants' method of controlling a remote intermediate data transmitter

station to communicate data to one or more receiver stations, as recited in Applicants' claims 9-11. Further, even if the Millar et al. system were somehow combinable with the teachings of Hedger et al., the resulting combination would fail to function in the same manner and achieve the same result as according to Applicants' novel controlling method.

2. Applicants' Summary of The Applied Art.

(a) The Hedger *et al.* reference has been discussed *supra*..

(b) The Millar *et al.* system is directed to the transmission of alphanumeric data by television. Their arrangement is related to television systems and receivers which enable alphanumeric information, such as captions and pages of information to be transmitted simultaneously with a video signal while allowing the picture represented by the video signal to be displayed with or without the alphanumeric information (Millar *et al.*, page 1 lines 9-16). Digital codes are placed on lines in the television vertical interval to produce single line subtitles to pictures or the transmission of individually selectable complete pages of information. (Millar *et al.*, page 1, lines 57-66). The alphanumeric vision signal and the main vision signal carried by the video signal are combined to display the alphanumeric information. (Millar *et al.*, page 2, lines 27-31). The data signal may be modulated upon the subcarrier near the sound carrier frequency (Millar *et al.*, page 2, lines 109-113) or the coded data signal can be added as pulses to one or more lines of the video signal which carry no ordinary picture information (Millar *et al.*, page 2, lines 122-125). In other words, Millar *et al.*, disclose: (1)

a television system for synchronously superimposing or adding alphanumeric data to a television signal by means of a digitally coded data signal; and (2) a receiver adapted to receive the video signal and display a corresponding picture.

**3. Applicants' Claims 9-11 are Non-Obvious over Hedger *et al.* in view
of Millar *et al.***

The Millar *et al.* video timing markers are not functionally, structurally or in anyway pertinent to Applicants' inventive method steps involving a remote data transmitter having a broadcast or cable cast transmitter, a plurality of selective transfer devices and a data receiver that is capable of receiving specific instruct signals from an origination station. Moreover, the incorporation of such an arrangement into the Hedger *et al.* home microcomputer would not relate to Applicants' novel communication control method recited in the claims 9-11, as amended. In order to more clearly recite this feature, Applicants have amended claims 9-11 to plainly state that their remote intermediate data transfer station and broadcast or cablecast transmitters themselves are capable of transmitting one or more of the specific instruct signals, and Applicants note, these one or more specific instruct signals are effective at one or more receiver stations to instruct a computer or processor, in relation to the entire budget calculating process. Needless to say, however, the Millar *et al.* system of counting and marking timing mechanism could not effectively generate useful budget data, even under the instruction of information sent according to Hedger *et al.* because the subscriber in the Hedger *et al.* case, is without specific instruct signals, such as relating to output user specific budget data, as recited in Applicants' claim 9.

Applicants' claim 9 calls for both receiving the specific instruct signal and then sending that signal, or any other specific instruct signal or signals to a broadcast or cable cast transmitter where, the specific instruct signal or signals, and any instruction signals or signals, serves to help generate to the output user specific budget data. Moreover, Applicants' step of communicating the controls signals to the transmitter takes place before a specific time, and that the specific time is a scheduled time of transmitting at least one of the instruct signals, so that the control signals are effectively control one or more of the selective transfer devices at different times. Neither Millar *et al.* or Hedger *et al.* discuss the "generating", "outputting" or "specific time" aspects of claim 9-11, as amended, nor would such considerations operate smoothly in any possible combined arrangement of their systems.

The integral-counting and character-marker timing mechanisms of Millar *et al.* are not the same as the processed-signal-controlled output of one of video and audio as recited in Applicants' claims 9-11. Millaret *al.* uses only on/off-type markers and counters to format the text with the television transmission while in independent claim 9, as amended, Applicants disclose the method steps of receiving at least one of specific instruct signals which are to be transmitted by a remote intermediate data transmitter station and communicating any one of the instruct signals to a broadcast or cable cast transmitter, receiving one or more of the control signals to control the communication of any one of the instruct signals, and then communicating one or more of the control signals to the transmitter before a specific time. According to Applicants' inventive

method steps, any one of the instruct signals are effective at a receiver station to generate and output user specific data.

Millar *et al.* does not suggest or infer that the receiver can or does use two separate processors and a control signal to generate and control output, as claimed in Applicants' claim 9-11, as amended. Further, much like a typical closed captioning system, Millar *et al.* does not anticipate the generation of video and audio at the receiver station as recited in Applicants' claim 9-11, as amended. Moreover, the marker detection methods of Millar *et al.* (i.e. "start of text" and "end of text") to control the formatted output of alphanumeric data do not directly suggest or infer "controlling said first processor to generate one of video and audio of a television signal in response to said control signal" as recited in Applicants' claim 9-11, as amended.

Claim 9, an independent claim, sets forth Applicants' method of controlling a remote intermediate data transmitter station for communicating data to one or more receiver stations. The remote intermediate data transmitter station includes a broadcast or cablecast transmitter which is capable of transmitting one or more specific instruct signals that are effective at any or all of the receiver stations a computer or processor , a plurality of selective transfer devices which each are operatively connected to the broadcast or cablecast transmitter respectively, a data receiver which is capable of receiving the specific instruct signals from at least one origination transmitter, a control signal detector , and a controller or computer that is capable of controlling any or all of the selective transfer devices. The remote intermediate data transmitter station detects the presence of one or more control signals for controlling the communication of the

specific instruct signals in response thereto, and delivers, from the broadcast or cablecast transmitter, the one or more specific instruct signals. The controlling method comprises three steps, the first of which is receiving one or more of the specific instruct signals and communicating any one of the signals to the broadcast or cable cast transmitter. Any one of the specific instruct signals is effective in the receiver station to generate output user specific budget data. The second step calls for receiving one or more control signals, which serve to control the communication of any one of the instruct signals. The third step involves sending one or more of the control signals to the transmitter before a specific time.

Applicants' claim 10, depends from claim 9, and has been amended to more plainly state Applicants' novel controlling method step of embedding a specific one of the control signal or signals into at least one of the specific instruct signals, or in an information transmission containing an instruct signal or signals, before transmitting any one of the specific instruct signals to the remote inter mediate data transmitter.

Applicants' Claim 11, and similarly has been amended to more plainly state Applicants' novel controlling method calls for the step of embedding a certain one of the control signals in at least one of the specific instruct signals, or in an information transmission continuing at least one of the instruct signals, before transmitting any one of the specific instruct signals to the remote data transmitter station.

4. Summary.

In view of the foregoing, precluding a proper rejection under 35 U.S.C. § 103(a), Applicants respectfully submit that the method steps recited in their claims 9-11, as

amended, are nonobvious over the cited references of Hedger *et al.* or Millar *et al.*, taken separately or in any reasonable combination.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 103 rejections of claims 9-11, as amended.

L. Response To Rejection Based On M.P.E.P. Section 804 (II)(B)(2).

As to the Office Action's rejection of Applicants' claim under a non-statutory non-obvious type of double patenting, Applicants strongly traverse the Examiner's double patenting rejection on three separate grounds which are set forth in the reply brief for Serial No. 08/113,329 (Atty. Docket No. 05634.008), incorporated herein by reference. For the sake of brevity, these arguments will not be set forth herein; the Examiner is respectfully directed to the above-mentioned reply brief.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court's determination that the double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent 'or' distinct. M.P.E.P. (6th ed.) § 802.01. The M.P.E.P. defines independent as meaning "that there is no disclosed relationship between the two or more subjects disclosed" and that they are not connected. The M.P.E.P. defines the term distinct as meaning that "two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed . . ." Two or more subjects cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO's cited representative claims referenced in the Office

Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable. Although not required, Applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

**i. First representative claims, U.S. patent 4,694,490,
claim 7 covering present application claim 12**

Patent 4,694,490, claim 7 claims a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals to a television receiver which presents a combined display of the television program and overlay video signals, said display specific to a specific user. Present application claim 12 relates to a method of communicating downloadable code and control signals through a transmitter station to a receiver station, where said code is effective to generate user specific graphics and said signals are effective to execute said code. Patent claim 7 does not cover present application claim 12. The two claims are capable of separate manufacture, use, and sale as claimed. These two inventions are distinct.

U.S. patent 4,694,490, claim 7	Present application claim 12 (amended)
In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related	12. (Amended) A method of controlling a plurality of receiver stations each of which includes an audio or graphics receiver, a signal detector, <u>at least one</u> processor, and with each [said] receiver station <u>being</u> adapted to detect the presence of [one or more] control signals and [programmed] to process downloadable code, said method of

to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct to-overlay signal are transmitted to said receiver stations, the steps of:

receiving said video signal at a plurality of receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations

detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and coupling said instruct-to-overlay signal to the computers at said selected receiver stations, and

causing the computers at said selected receiver stations to generate and transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver stations being different, with each display specific to a specific user.

controlling comprising the steps of:

(1) receiving at a transmitter station some downloadable code which is effective at a receiver station to generate and display a series of user specific graphics, said downloadable code having at each of said plurality of receiver stations a target processor to process data;

(2) transferring said downloadable code from said transmitter station to a transmitter;

(3) receiving one or more control signals at said transmitter station, said one or more control signals [operate] effective at a receiver station to execute said downloadable code; and

(4) transferring said one or more control signals from said transmitter station to said transmitter, and transmitting an information transmission comprising [the] said downloadable code and said one or more control signals.

ii. Second representative claims, U.S. patent 4,704,725, claim 3 covering present application claim 12.

Patent 4,704,725, claim 3 claims a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from

computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal. Present application claim 12 relates to a method of communicating downloadable code and control signals through a transmitter station to a receiver station, where said code is effective to generate user specific graphics and said signals are effective to execute said code.. Patent claim 3 does not cover present application claim 12. The two claims are capable of separate manufacture, use, and sale as claimed. These two inventions are distinct.

U.S. patent 4,704,725, claim 3	Present application claim 12 (Amended)
<p>A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of:</p> <p>transmitting an instruct-to-transmit signal to said computers at a time when the corresponding user specific information is not being transmitted to an output device;</p> <p>detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the computers associated with said selected stations, and</p> <p>causing said last named computers to generate and transmit their user specific signals to their associated output devices</p>	<p>12. (Amended) A method of controlling a plurality of receiver stations each of which includes an audio or graphics receiver, a signal detector, <u>at least one</u> processor, and with each [said] receiver station <u>being</u> adapted to detect the presence of [one or more] control signals and [programmed] to process downloadable code, said method of controlling comprising the steps of:</p> <p>(1) receiving at a transmitter station some downloadable code which is effective at a receiver station to generate and display a series of user specific graphics, said downloadable code having at each of said plurality of receiver stations a target processor to process data;</p> <p>(2) transferring said downloadable code from said transmitter station to a transmitter;</p> <p>(3) receiving one or more control signals at said transmitter station, said one or more control signals [operate] <u>effective at a receiver station</u> to execute said downloadable code; and</p> <p>(4) transferring said one or more</p>

in response to said instruct-to-transmit signal, thereby to transmit to the selected output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

control signals from said transmitter station to said transmitter, and transmitting an information transmission comprising [the] said downloadable code and said one or more control signals.

iii. **Third representative claims, U.S. patent 4,965,825, claim 24 covering present application claim 12.**

Patent 4,965,825, claim 24 claims a method of generating user specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user". Present application claim 12 relates to a method of communicating downloadable code and control signals through a transmitter station to a receiver station, where said code is effective to generate user specific graphics and said signals are effective to execute said code. Patent claim 24 does not cover present application claim 12. The two claims are capable of separate manufacture, use, and sale as claimed. These two inventions are distinct.

U.S. patent 4,965,825, claim 24

In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user

Present application claim 12 (Amended)

12. (Amended) A method of controlling a plurality of receiver stations each of which includes an audio or graphics receiver, a signal detector, at least

specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to accommodate a special user application, the steps of:

transmitting an instruct-to-generate signal to said computers at a time when corresponding user specific output information content does not exist, and causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

one processor, and with each [said] receiver station being adapted to detect the presence of [one or more] control signals and [programmed] to process downloadable code, said method of controlling comprising the steps of:

- (1) receiving at a transmitter station some downloadable code which is effective at a receiver station to generate and display a series of user specific graphics, said downloadable code having at each of said plurality of receiver stations a target processor to process data;
- (2) transferring said downloadable code from said transmitter station to a transmitter;
- (3) receiving one or more control signals at said transmitter station, said one or more control signals [operate] effective at a receiver station to execute said downloadable code; and
- (4) transferring said one or more control signals from said transmitter station to said transmitter, and transmitting an information transmission comprising [the] said downloadable code and said one or more control signals.

iv. **Fourth representative claims, U.S. patent 5,109,414, claim 15 covering present application claim 12.**

Patent 5,109,414, claim 15 claims a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a processor controls the directing functions of (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means and (2) the device which stores and transfers the control signals to the processor.

Present application claim 12 relates to a method of communicating downloadable code

and control signals through a transmitter station to a receiver station, where said code is effective to generate user specific graphics and said signals are effective to execute said code. Patent claim 15 does not cover present application claim 12. The two claims are capable of separate manufacture, use, and sale as claimed. These two inventions are distinct.

U.S. patent 5,109,414, claim 15	Present application claim 12 (Amended)
<p>In a signal processing system, a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means, a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means, a control signal detector means for detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data, a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals to a processor means for further processing, and a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.</p>	<p>12. (Amended) A method of controlling a plurality of receiver stations each of which includes an audio or graphics receiver, a signal detector, <u>at least one</u> processor, and with each [said] receiver station <u>being</u> adapted to detect the presence of [one or more] control signals and [programmed] to process downloadable code, said method of controlling comprising the steps of: (1) receiving at a transmitter station some downloadable code which is effective at a receiver station to generate and display a series of user specific graphics, said downloadable code having at each of said plurality of receiver stations a target processor to process data; (2) transferring said downloadable code from said transmitter station to a transmitter; (3) receiving one or more control signals at said transmitter station, said one or more control signals [operate] <u>effective at a receiver station</u> to execute said downloadable code; and (4) transferring said one or more control signals from said transmitter station to said transmitter, and transmitting an information transmission comprising [the] <u>said</u> downloadable code and <u>said</u> one or more control signals.</p>

M. Applicants' Comments With Respect to the Interviews.

Concerning paragraph 24 of the Office Action, Applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in the Office Action. Paragraph 24 of the Office Action further states that "the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings." Applicants note that based on the Office Actions received thus far, the PTO does not appear to be following the groupings Applicants submitted previously. The order of examination of Applicants' applications do not seem to have any correspondence to the groupings previously submitted. Applicants, therefore, will not supply further groupings. Applicants will, however, gladly supply further groupings if requested by the PTO for the purpose of following these groupings. Mr. Groody has confirmed in a telephone conversation between Mr. Groody and Mr. Scott that no more groupings need be sent.

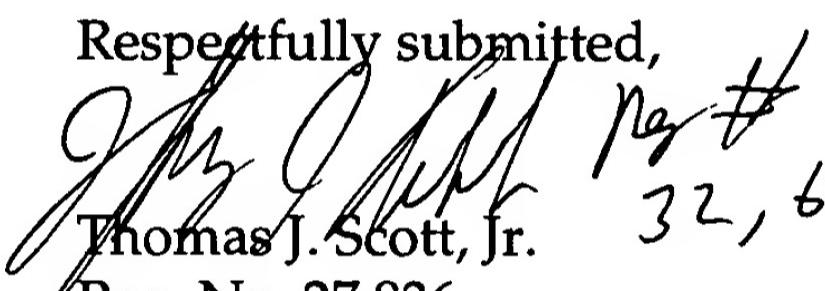
In the interest of maintaining a clear record, Applicants respectfully traverse the Office Action's interview summary statement that an offer was made to terminally disclaim the present application with the '81 or '87 patents. Rather, Applicants respectfully submit that their offer was to disclaim a block of copending applications against one another, provided their issue date was in close enough proximity so as not to result in unnecessarily great losses in patent term duration.

III. CONCLUSION

Based upon the foregoing, Applicants respectfully submit that all outstanding objections and rejections have been overcome and/or rendered moot. Further, it is respectfully submitted that the now pending claims 2-15 and 17-39 are patentably distinguishable over the prior art of record, taken either singularly or in any reasonable combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

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